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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,199	11/16/2001	Mark A. Swart	45464/GSL/E87	3387
23363	7590	12/01/2003	EXAMINER	
CHRISTIE, PARKER & HALE, LLP 350 WEST COLORADO BOULEVARD SUITE 500 PASADENA, CA 91105			NGUYEN, TUNG X	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,199

Applicant(s)

SWART, MARK A.

Examiner

Tung X Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on interview 4/15/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of species of figure 4 including the claims 1-5, 17-20 in Paper No. 8 is acknowledged. The traversal is on the ground(s) that "the claim 1 is generic". This is not found persuasive because the claim 1 does not read on these species of figures 7-14.

The requirement is still deemed proper and is therefore made FINAL.

2. Applicant is requested to cancel the non-elected claims 6-16.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "*non-contact sensor*" recited in claims 17-20, and "*mounting chucks*" recited in claim 4, and "*rigid rails*" recited in claim 5 must be shown in Figure 4 of selected species I or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-5, and 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, it is unclear that a shorting matrix for electrically shorting the printed circuit board. How does the shorting matrix use for electrically shorting the printed circuit board?

All of dependent claims 2-5 are rejected base on the rejected independent claim

- 1.

To apply the prior art, Examiner assumes that the shorting matrix considered to be a compliant layer or compliant material hold the printed circuit board for testing.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kershner et al. (u.s.p 4,818,933), in view of Rathburn (u.s.p 6,572,396).

As to claims 1-3, Kerchner et al. disclose in Figs. 1-7, a scan test apparatus for testing printed circuit boards comprising: an upper housing and a lower housing having

a first drive roller considered to be a motor (13) and a second drive roller considered to be a gears (18 of figure 2) for movement of the printed circuit board with respect to the scan test apparatus; and an electrical contactor considered to be the probe (46, 47 in figures 1-7) positioned on at least one of the upper housing or the lower housing, wherein the electrical contactors transmit test signals from the printed circuit board to measurement electronics (col. 2, lines 58-65). Kerchner et al. teach all of the features except for the shorting matrix positioned on at least one of the upper housing and lower housing. However, Rathburn teaches in Figs. 10-11, the shorting matrix considered to be the compliant material (198 of figure 11, col. 2, lines 5-10) for retaining the printed circuit board to the housing. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Kerchner et al., and provide the compliant material between the housing and printed circuit board, as taught by Rathburn for tightly retaining the printed circuit board to test.

As to claims 4-5, Kerchner et al. disclose in Figs. 1-7, the scan test apparatus further comprising mounting chucks with the rigid rails (22, 24) for the drive rollers to move the test apparatus across the surface of the stationary printed circuit board for testing (col. 4, lines 20-35)

As to claims 17, 20, Kerchner et al. disclose in Figs. 1-7, a scan test apparatus for testing printed circuit boards comprising: an upper housing considered to be upper section (12) and lower housing considered to be lower section (14), wherein the upper housing and lower housing having means (13, 25, 26, 27) for moving the printed circuit board (11) with respect to the scan test apparatus (col. 6, lines 10-15); at least one

contact sensor considered to be the probe (46, 47 in figures 1-7) positioned on at least one of the upper housing and the lower housing; an means (col. 4, lines 35-65) for biasing the upper and lower housing toward each other. Kerchner et al. teach all of the features except for the shorting matrix positioned on at least one of the upper housing and lower housing. However, Rathburn teaches in Figs. 10-11, the shorting matrix considered to be the compliant material (198 of figure 11, col. 2, lines 5-10) for retaining the printed circuit board to the housing. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Kerchner et al., and provide the compliant material between the housing and printed circuit board, as taught by Rathburn for tightly retaining the printed circuit board to test.

As to claims 18-19, Kerchner et al. disclose in Figs. 13-14, the contact sensor dispose on the each side of the printed circuit board (80 of figure 13), and Rathburn disclose the shorting matrix (198 of figure 11, col. 2, lines 5-10) for retaining the printed circuit board to the upper and lower housing.

Conclusion

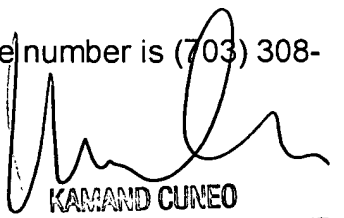
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bullock (u.s.p 5,094,584), and Teichman et al. (u.s.p 6,145,648) Relative to the apparatus for testing the printed circuit board.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X Nguyen whose telephone number is (703) 305-3337. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703)-308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5841.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



KAMAND CUNEO
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TN
11/11/03